

## Author index

Allen, C.J., see Bull, C.R. et al.	15
Aspinall, R.J., see Zhu, X. et al.	279
Baars, R.M.T., Solano, C., Baayen, M.T., Rojas, J. and 't Mannetje, L.	
MIS support for pasture and nutrition management of dairy farms in tropical countries	27
Baayen, M.T., see Baars, R.M.T. et al.	27
Bailey, B.J., see Chalabi, Z.S. et al.	1
Brandl, N. and Jørgensen, E.	
Determination of live weight of pigs from dimensions measured using image analysis	57
Buckley, D.J., see Pattey, E. et al.	303
Bull, C.R., see Zwiggelaar, R. and Bull, C.R.	89
Bull, C.R., McFarlane, N.J.B., Zwiggelaar, R., Allen, C.J. and Mottram, T.T.	
Inspection of teats by colour image analysis for automatic milking systems	15
Chalabi, Z.S., Bailey, B.J. and Wilkinson, D.J.	
A real-time optimal control algorithm for greenhouse heating	1
Desjardins, R.L., see Pattey, E. et al.	303
Geyer, M., see Herold, B. et al.	73
Hansson, PA.	
Rear axle suspensions with controlled damping on agricultural tractors	123
Healey, R.G., see Zhu, X. et al.	279
Herold, B., Truppel, I., Siering, G. and Geyer, M.	
A Pressure Measuring Sphere for monitoring handling of fruit and vegetables	73
Hess, T.	
A microcomputer scheduling program for supplementary irrigation	233
Holtfrerich, D.R., see Loh, D.K. et al.	323
Hsieh, YT.C., see Loh, D.K. et al.	323
Hulzebosch, A.A., see Timmermans, A.J.M. and Hulzebosch, A.A.	41
Jørgensen, E., see Brandl, N. and Jørgensen, E.	57
Lamaker, E.J.J., see Lokhorst, C. and Lamaker, E.J.J.	215
Loh, D.K., Van Stipdonk, S.E.P., Holtfrerich, D.R. and Hsieh, YT.C.	
Spatially constrained reasoning for the determination of wildlife foraging areas	323
Lokhorst, C. and Lamaker, E.J.J.	
An expert system for monitoring the daily production process in aviary systems for laying hens	215
Magliulo, V.	
Automatic scanning of multiple leaf chambers for gas exchange measurements	149
Marchant, J.A.	
Tracking of row structure in three crops using image analysis	161
McFarlane, N.J.B., see Bull, C.R. et al.	15
Mitchell, R.S., Sherlock, R.A. and Smith, L.A.	
An investigation into the use of machine learning for determining oestrus in cows	195
Mottrem TT see Rull CP et al	15

Noyman, Y. and Shmulevich, I.	
Ground surface sensing through plant foliage using an FM-CW radar	181
Pattey, E., Royds, W.G., Desjardins, R.L., Buckley, D.J. and Rochette, P.	
Application software for a data acquisition and control system for measuring atmospheric trace	
gas and energy fluxes	303
Perry, J.N.	
Simulating spatial patterns of counts in agriculture and ecology	93
Riley, J.R., see Smith, A.D. and Riley, J.R.	267
Rochette, P., see Pattey, E. et al.	303
Rojas, J., see Baars, R.M.T. et al.	27
Royds, W.G., see Pattey, E. et al.	303
Sherlock, R.A., see Mitchell, R.S. et al.	195
Shmulevich, I., see Noyman, Y. and Shmulevich, I.	181
Siering, G., see Herold, B. et al.	73
Smith, L.A., see Mitchell, R.S. et al.	195
Smith, A.D. and Riley, J.R.	
Signal processing in a novel radar system for monitoring insect migration	267
Solano, C., see Baars, R.M.T. et al.	27
't Mannetje, L., see Baars, R.M.T. et al.	27
Tari, F.	
A Bayesian Network for predicting yield response of winter wheat to fungicide programmes	111
Timmermans, A.J.M. and A.A. Hulzebosch,	
Computer vision system for on-line sorting of pot plants using an artificial neural network	
classifier	41
Truppel, I., see Herold, B. et al.	73
Van Stipdonk, S.E.P., see Loh, D.K. et al.	323
Verdenius, F.	
Managing product inherent variance during treatment	245
Wilkinson, D.J., see Chalabi, Z.S. et al.	1
Zhu, X., Aspinall, R.J. and Healey, R.G.	
ILUDSS: A knowledge-based spatial decision support system for strategic land-use planning	279
Zwiggelaar, R., see Bull, C.R. et al.	15
Zwiggelaar, R. and Bull, C.R.	
The VIIth International Conference on Sensors and their Applications: Relevance to the	
Agricultural Community (Meeting Report)	89

Computers and electronics in agriculture

## Subject index

Adaptive control 123 Aggregation 93 Artificial fruit 73 Association 93

Bayesian Networks 111 Body dimensions 57 BOReal Ecosystems Atmosphere Study 303

Cattle feeding 27
Cattle teat inspection 15
Cereals 161
Computer vision 41
Constraint satisfaction 245
Control 161
Costa Rica 27
Cuvette experiment 149

Dairy cow 195
Data acquisition and control system 303
Decision support system 215
Decision tree 245
Discriminant analysis 41

Eddy-accumulation 303 Eddy-correlation 303 Energy conservation 1 Environmental control 1 Expert system 215, 279, 323

Flight monitoring 267 Foliage 181 Fruit handling 73

Gas exchange measurement 149 Geographical information system 279 GIS 323 Greenhouse 1 Ground surface detection 181

Image analysis 57, 161

Image analysis, colour 15 Image processing 41 Infrared gas analysis 149 Insect migration 267 Insects 267 Integrated system 323 Irrigation 233 Irrigation scheduling 233

Knowledge-based spatial decision support system 279

Land-use planning 279 Laying hen 215 Learning by induction 245 Live weight 57

Machine learning 195
Management information system 27
Margin over feed costs 27
Mathematical model 1
Micrometeorology 303
Microwave 181
Milking parlour automation 15

Neural network 41, 245

Oestrus detection 195 Optimal control 1

Pattern recognition 41
Pig production 57
Pressure measuring sphere 73
Probabilistic inference 111
Production monitoring laying hen 215
Programmes 111

Quality control 245

Radar 267 Radar-Cross-Section 181 Recipe design 245 Regularity 93 Remote sensing 181 Robotics 161 Row crops 161

Semi-active suspension 123 Sensor, electronic 89 Sensor, optical 89 Signal-processing 267 Spatial Analysis by Distance IndicEs (SADIE) 93 Spatial influence diagram 279 Spatial simulation 93 Standards egg production 215 Sugar beet 161

Trace gas flux 303 Tractor, agricultural 123 Tropical pasture 27

Vegetable handling 73

Water balance 233 Weeds 161 Winter wheat 111